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NOTICE OF ALLOWANCE AND FEE(S) DUE

52349

7590

05/18/2010

WENDEROTH, LIND & PONACK L.L.P.
1030 15th Street, N.W.
Suite 400 East
Washington, DC 20005-1503

EXAMINER

PATEL, MUNJAL KUMAR C

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 05/18/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,533	04/10/2006	Hidetoshi Yamasaki	2006-0476A	8903

TITLE OF INVENTION: INTER-STATION TRANSMISSION METHOD, RADIO BASE STATION MONITORING METHOD, AND DEVICE USING THE METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/18/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

52349 7590 05/18/2010

WENDEROTH, LIND & PONACK L.L.P.
1030 15th Street, N.W.
Suite 400 East
Washington, DC 20005-1503

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,533 04/10/2006 Hidetoshi Yamasaki 2006-0476A 8903

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nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/18/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
PATEL, MUNJALKUMAR C	2617	370-337000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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52349	7590	05/18/2010	EXAMINER	
WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East Washington, DC 20005-1503			PATEL, MUNJAL KUMAR C	
			ART UNIT	PAPER NUMBER
			2617	
DATE MAILED: 05/18/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 368 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 368 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/575,533

Examiner

Munjal Patel

Applicant(s)

YAMASAKI ET AL.

Art Unit

2617

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Request for Continued Examination (RCE) filed March 29, 2010.
2. ☒ The allowed claim(s) is/are 1,4-10,12,13,15 and 16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 04/10/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 1, 4-10, 12, 13, 15, and 16 are allowed.

Reasons for Allowance

2. The following is an Examiner's statement of reasons for allowance:

3. Regarding claim 1, the prior art fails to teach:

An inter-station transmission method used in a mobile communication system comprising a mobile station and a base station operable to return, to the mobile station by means of a TDMA system, a response packet, the response packet being returned by the base station in response to a packet received from the mobile station, and the response packet being returned within a same time slot used for receiving the response packet,

wherein the base station includes:

a radio base station operable to demodulate an uplink packet signal received from the mobile station and extract uplink transmission data, and operable to modulate downlink transmission data to be transmitted to the mobile station and generate a downlink packet signal;

a communication control station operable to receive the uplink transmission data from the radio base station, generate downlink transmission data corresponding to the uplink transmission data received from the radio base station and transmit the generated downlink transmission data to the radio base

station; and

an inter-station transmission path that establishes a wired connection between the radio base station and the communication control station, and

wherein the inter-station transmission method includes:

in the radio base station, transmitting the uplink transmission data from the radio base station to the communication control station, the uplink transmission data being transmitted, in a TDMA frame format used for a radio link between the radio base station and the mobile station;

transmitting the downlink transmission data, in the TDMA frame format, from the communication control station to the radio base station in accordance with a predetermined communication control station transmission clock, wherein the downlink transmission data includes a channel data packet, which is within the TDMA frame, to be transmitted inserted therein, and includes dummy data for reproducing a radio base station reception clock inserted therein in a period in which the channel data packet to be transmitted is not present;

in the communication control station, processing the uplink transmission data received from the radio base station in the TDMA frame format;

in the radio base station, reproducing the radio base station reception clock synchronized with the predetermined communication control station transmission clock, the radio base station reception clock being

reproduced from the downlink transmission data received from the communication control station; and

in the radio base station, processing the downlink transmission data using the radio base station reception clock.

4. Regarding claim 12, the prior art fails to teach:

A radio base station monitoring method used in a mobile communication system comprising a mobile station and a base station operable to return, to the mobile station by means of a TDMA system, a response packet, the response packet being returned by the base station in response to a packet received from the mobile station, and the response packet being returned within a same time slot used for receiving the response packet,

wherein the base station includes:

a radio base station operable to demodulate an uplink packet signal received from the mobile station and extract uplink transmission data, and operable to modulate downlink transmission data to be transmitted to the mobile station and generate a downlink packet signal;

a communication control station operable to receive the uplink transmission data from the radio base station, generate downlink transmission data corresponding to the uplink transmission data received from the radio base station and transmit the generated downlink transmission data to the radio base station; and

an inter-station transmission path that establishes a wired connection between the radio base station and the communication control station, and

wherein the radio base station monitoring method includes:

in the radio base station, generating monitoring data for notifying a state of the radio base station to the communication control station;

in the radio base station, time division multiplexing the monitoring data into the uplink transmission data with a slot timing that is only allocated to a downlink;

in the radio base station, transmitting the uplink transmission data and the monitoring data to the communication control station, the uplink transmission data and the monitoring data being transmitted, in a TDMA frame format used for a radio link between the radio base station and the mobile station;

in the communication control station, transmitting the downlink transmission data, in the TDMA frame format, from the communication control station to the radio base station in accordance with a predetermined communication control station transmission clock, wherein the downlink transmission data includes a channel data packet, which is within the TDMA frame, to be transmitted inserted therein, and includes dummy data for reproducing a radio base station reception clock inserted therein a period in which the channel data packet to be transmitted is not present;

in the communication control system, processing the uplink

transmission data received from the radio base station in the TDMA frame format;

in the communication control station, monitoring the state of the radio base station using the monitoring data.

In the radio base station, reproducing the radio base station reception clock synchronized with the predetermined communication control station transmission clock, the radio base station reception clock being reproduced from the downlink transmission data received from the communication control station; and

In the radio base station, processing the downlink transmission data using the radio base station reception clock.

5. Regarding claim 13, the prior art fails to teach:

A mobile communication system comprising a mobile station and a base station operable to return, to the mobile station by means of a TDMA system, a response packet, the response packet being returned by the base station in response to a packet received from the mobile station, and the response packet being returned within a same time slot used for receiving the response packet,

wherein the base station includes:

a radio base station operable to demodulate an uplink packet signal received from the mobile station and extract uplink transmission data, and operable to modulate downlink transmission data to be transmitted to

the mobile station and generate a downlink packet signal;

a communication control station operable to receive the uplink transmission data from the radio base station, generate downlink transmission data corresponding to the uplink transmission data received from the radio base station and transmit the generated downlink transmission data to the radio base station; and

an inter-station transmission path that establishes a wired connection between the radio base station and the communication control station,

wherein the radio base station transmits, to the communication control station, the uplink transmission data, the uplink transmission data being transmitted, in a TDMA frame format used for a radio link between the radio base station and the mobile station,

wherein the communication control station processes the uplink transmission data received from the radio base station, in the TDMA frame format, and transmits, to the radio base station, the downlink transmission data in the TDMA frame format,

wherein the radio base station processes the downlink transmission data received from the communication control station, in the TDMA frame format,

wherein the communication control station includes:

a signal generating unit operable to generate (i) a communication control station transmission clock for providing a transmission

timing of the downlink transmission data and (ii) a communication control station reception clock for providing a reception timing of the uplink transmission data;

a data generating unit operable to (i) generate the downlink transmission data including a channel data packet, which is within the TDMA frame, to be transmitted inserted therein, and including dummy data for reproducing a radio base station reception clock inserted therein in a period in which the channel data packet to be transmitted is not present, and (ii) transmit the downlink transmission data to the radio base station, in accordance with the communication control station transmission clock; and

a reception unit operable to receive, in accordance with the communication control station reception clock, the uplink transmission data, and wherein the radio base station includes:

a reproduction unit operable to reproduce, from the downlink transmission data received from the communication control station, a radio base station reception clock and a radio base station transmission clock, the radio base station reception clock and the radio base station transmission clock being synchronized with the communication control station transmission clock; and

a radio unit operable to (i) process the downlink transmission data using the radio base station reception clock reproduced in the reproduction unit and (ii) process the uplink transmission data using the radio base station transmission clock reproduced in the reproduction unit.

Any comments considered necessary by Applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Munjal Patel whose telephone number is (571)270-5541. The examiner can normally be reached on Monday - Friday 9:00 AM - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. P./
Examiner, Art Unit 2617

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617